

RECORDS PRESERVATION IN THE U.S.S.R.

By

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Throughout the entire history of the Soviet state, the greatest attention has been paid to its historical and cultural heritage, including its archives.

Considering the specific character of the organization of archival affairs in our country and their essential differences in a number of instances from foreign archives, it has been necessary for us to create our own school, our own theory of archival management, and at times to decide some practical questions differently. However, we have never refused and are not now refusing to employ positive experience from the development of foreign archives.

In their practical work, our archival establishments constantly use the knowledge of many branches of learning not only of the humanities, but also of the technical and natural sciences. A most important aspect of applying this knowledge in archival matters is the problem of ensuring the preservation of documentary materials. The main questions considered are the following: constructing and equipping of modern archival depositories; ensuring the long-range safekeeping of documentary materials, including their restoration and preservation, their chemical processing, and setting up the optimum conditions for storing them; devising and introducing methods for restoring indistinct and faded texts; protecting documents from harmful admixtures of air and the harmful effects of light; and, finally, introducing archival microfilming.

Also important is the introduction of modern techniques in the operations of the archives, restoration work shops, and microfilm laboratories.

Prior to 1917 there existed in Russia only twenty small archival buildings, and these were primarily under governmental departments. And only some of these -- such as the Moscow Archive of the Ministry of Justice, the Main Moscow Archive of the Ministry of Foreign Affairs, the Lefort Archive, the Russian Imperial Government Archive, and the Archive of the Naval Ministry -- were able to satisfy the demands made upon them.

At present in the Soviet Union there is a wide network of 3,000 USSR national archives, and several hundred thousand lesser government and other archives.

The considerable growth in the number of government archives has necessitated creating the indispensable conditions for storing the materials concentrated in them. At first the premises of former palaces, churches and monasteries, at that time considered to be the best premises, were selected for archives. Only in the 1950's was the construction of new begun buildings/for the national archives. Thus in Moscow, at the location of the Central State Archive for Ancient Documents which had twenty-nine kilometers (more than eighteen miles) of shelf space, by 1960 there were constructed eight more buildings with a shelf space of 134 kilometers (nearly eighty four miles) of shelves.

Beginning in 1957, there have been built in the Soviet Union more than 100 new archival buildings with an overall capacity of more than 80 million paper document files and 200,000 containers of film documents, stored on 1600 kilometers of shelves (1000 miles). More than 30 buildings are still being constructed.

Among the newly constructed buildings are also the national archives for the national economy, literature and for art; the Archive of the Russian Republic, the film depository of the archive for cinema documentaries, etc., and the building of the central government archives in the Azerbaidzhan, Belorussian, Georgian, Kazakh, Uzbek, Armenian, Kirgiz, Lithuanian, Moldavian and Turkmen Republics, plus twenty-four buildings of their branches, twenty government archives of autonomous republics and regions, and twenty-two buildings for government archives in the largest cities of the Russian Republic.

There have also been constructed film depositories of cinema archives in the cities of Kiev, Tibilisi, Kishinev, Baku, Ashkhabad, and elsewhere.

In the near future construction will begin on archival complexes for the central government archives of the Ukrainian, Tadzhik and Estonian Republics.

In these same years there were taken over and adapted for archival depositories more than 100 other premises in regional centers and more than 1,000 buildings in cities and in district centers. True, during this same time it became necessary to refuse some old decrepit structures which were not suitable for further storing of documents, but these were relatively few.

In the majority of instances the construction is being carried out according to standard plans for archives, worked out between 1956 and 1963, with capacities for 210, 400, 600, 800 and 1200 thousand paper files and for buildings of cinema film archives for 10 and 20 thousand containers of film spools.

The standard plans for government archives provide, in addition to the archive depository and working rooms for the staff, space for reading rooms, methods studies, and places for microfilming, restoration and disinfection of documentary materials. The depositories are equipped with stationary metal double-faced shelves. The construction of the majority of premises is designed also for compact packets of the "Kompaktus" type under the shelves. Heating is by hot water in the administrative areas; in the depository there is year-round air conditioning.

At present, some of these standard plans, despite their having been revised, are out of date. Therefore, there has appeared the necessity for new, more modern buildings which take into account the growing standard of construction and equipment. Other standard plans were therefore worked out for 400,000, 800,000 and 1.5 million files, based upon positive design experiments in both (new) construction and putting into operation previously constructed archives, and based upon the latest demands of city construction (increasing the number of floors, architectural form, maximal use of standard plans of building construction, and also achievements of the best conditions for preservation and use of documentary materials and of the labor of service personnel on the basis of modern techniques and automation).

Such a standard plan as the archive for 1.5 million files (twenty-four kilometers or fifteen miles) of shelves, represents a comparatively simple eight-story building in architecture and halls for storage which are simple in form, but it requires the accommodation of shelves and the adequate operation of air conditioning. The service areas, stair cases, elevators, lift for materials, and space for the fund curator and staff members, are joined to the depository.

On the ground floor are located the areas for patrons, for the administration, and space for receiving and processing archival documents, and also the restoration workshop and microfilm complex. The patrons are isolated from the technological processes, and from the loading and delivery of documents to the reading hall. There are two entrances plus a fire exit, an entrance hall with a cloak room and information table, and an exhibition hall. On one side of the entrance hall are the premises of the administration; on the other side are located the catalog, the reference library and the reading hall. There are two elevators each with a capacity of 500 kilos (227 pounds) and the materials lift. On each floor of the depository, the height of which is 3.3 meters (10 feet) from floor to floor, is a room for the fund curator.

Because of the compact nature of the halls, the only transport required is vertical. In transferring documents in the depository hand-carts are used, which may be rolled into the lift and moved about on the floors and in the reading hall.

The depository is equipped with an air conditioning system.

In the archive depository above the passageways between shelves there are incorporated a fire prevention mechanism for detecting smoke, heat and flames, a specific location for a fire extinguisher, and a fire alarm system employing light and audio signals

The dual-faced stationary metal shelving is partially doubled for increasing the capacity of the depository with seven shelves. The distance between shelves is 27 cm. (11 3/4 inches), the size of the shelves are 36 x 1000 cm. (13 1/4 inches x 32 1/2 feet). The width of the double-faced shelving is 75 cm. (30 inches); the width of the passageway between shelves is also 75 cm.

The air conditioning levels within the archival depositories are a temperature of 15 plus or minus 1° C. (59 ⁺ 2° F.) and a humidity of plus or minus 5%.

Together with the construction of archives according to standard plans, many buildings of large archives designed for two to seven or more million files (30 to 100 kilometers -- 19 to 63 miles) of shelves are constructed from individual plans. It should also be noted that a number of ministries and large institutions also put up special buildings for their own archives.

The very rapid development of science, technology and culture, as well as the emergence of cinema, television, and sound recording, have led to the creation of archives for cinema film documentaries of archives for sound recordings.

In connection with the fact that a considerable portion of cinema materials were filmed on flammable celluloid, the first film depositories

were built underground. However, experiences with constructing large underground film depositories indicated substantial shortcomings, in particular, with the complexity of isolating them from the penetration of precipitation and ground water. Therefore, we consider that above-ground film depositories are more acceptable.

In comparison to archives for the storage of paper documentary materials, the film depositories are better equipped technologically and in and of themselves are complex technical installations.

The construction of film archives consists of isolated boxes of which are united in compartments divided by fire walls. In case a spool of film catches fire, the boxes are equipped with separate valves for emitting extinguishing gases.

The building for a cinema and photo archive is a construction and technical complex, which requires constant skilled servicing.

Restoration and preservation play fairly important roles in the sorting of documentary materials. Of great significance have been the laboratories for restoration, which are now located in all of the major archives of the country. It has become clear that it is necessary to reject incorrect practices and to set up strict scientific principles in their operations.

In our country a number of institutions are occupied with working out scientifically based preparations and methods for processing documents. The largest of these include: the USSR Scientific Research Institute for Managing Documents and for Archival Affairs, of the Main Archival Administration, the USSR Central Scientific Research Laboratory for Preserving

and Restoring Museum and Art Treasures, of the Ministry of Culture, and the Laboratory for Preserving and Restoring Documents, of the Academy of Sciences.

At present there has accumulated in the archives a great quantity of documents, many of which are not of lasting worth. To a large degree this is explained, first, by the rapid increase in the size of the archives, and preserving their contents in ordinary circumstances is difficult. Installations are needed with regulatable procedures and suitable equipment.

Secondly, the composition of paper is changing considerably with the production of less expensive and therefore less durable kinds. Practical experience has shown that archive documents originating up to the second half of the 19th century do not need chemical methods of processing, since their parchment, paper and dyes, etc., are highly stable.

Third, the polluting of air around cities, especially from sulphureous gases, destructively influences the preservability of paper. With the growth of industrial production, more and more harmful admixtures are found in the air, which are absorbed by paper and contribute to the physical weakening of its substance and to discoloration chemically of unstable dyes used for the text.

In the USSR the processing of documents is permitted only under designated official laboratory conditions, in which a preparation must be used which has been prepared or permitted by suitable scientific research institutions. The practical methods for carrying out the processing of documents are also regulated by corresponding instructions. In renewing documents, materials are selected which are related to the substance of the original; this is especially important for very old documents.

With materials originating up to the second half of the 19th century, plant and animal products are utilized, and these documents are processed by the so-called "classical method".

With "younger" documents, synthetic materials are utilized. Efforts are directed toward slowing or stopping the process of disintegration of the paper and dyes by using physical and chemical methods. Stabilizing solutions fix the aniline dyes of the texts, and impregnating solutions, etc., increase physically the durability of the paper base.

Missing portions of documents are restored on a sheet-forming apparatus out of pulp which is identical to that used originally in the document. For auxilliary operations a special type of long-fiber paper is used.

Certain documents, which are used as reference materials or which can be stored for only a limited period and which require considerable increase in their physical durability, are laminated.

A serious problem in the further development and perfection of archival affairs are the microfilming of documentary materials and related questions concerning the storage and use of microfilms.

Recently within the system of the Main Archival Administration throughout the country, there have been set up 102 restoration workshops and microfilm laboratories. The largest of these are the laboratories of the Main Archival Administration in Moscow and Leningrad with capacities for producing many millions of frames each year.

Large laboratories have been created at each of the republic archive administrations, and also in many government archives of regions, districts and autonomous republics.

It was determined that the basic directions of archival microfilming

would be the following: the creation of an 'insurance' fund of the most valuable and unique documentary materials; copying of valuable documents whose texts were fading; adding to the Soviet archival collection copies of documentary material which are deposited abroad and exchanging microfilm copies among archives within the country; broadening the use of documentary materials by giving out copies of documents rather than the originals to interested establishments and persons; publishing documents by subject or by fund in microfilm form; and, finally, as a means for substituting original documents with microfilm copies.

In all of these directions the employment of microfilming is widespread, with the exception of microfilm substitution.

The seeming incomparable advantage of storing microfilm rolls in archives in place of paper, especially as it relates to volume, appears to be quite groundless. It follows, therefore, that the approach to questions of microfilming needs be highly cautious and, of course, there cannot be any talk about massive destruction of originals after their microfilming. Practical experience has shown that microfilming documents with cameras, taking frames singly, costs considerably more than the construction of buildings for storage of these documents in the original; using cameras in archival operations with some type of assembly-line exposures runs up against the impossibility of photographing bound and stitched materials, documents of larger format, and also documents which differ one from another in color, size, thickness, text contrast, etc. Microcopying does not convey all of the external peculiarities of the original which may be of interest (texture of the paper, color of ink, water marks, etc.).

Depending upon the contrast of the document text there is a technical limit to the possibility of reduction. And, reading microfilm is much more tiring so that researchers object to their use. Aside from this, without special reference documentation, without carrying out a number of exceptionally strict, difficult-to-employ requirements of systemization and scientific and technical processing,

In relation to the originals which are undergoing microcopying, a number of documents in practice would be forever "buried" among countless rolls of film. In this regard, as a matter of fact, it is not clear which materials deposited in institutions should be microfilmed, although ahead of time they require special, expensive and labor-consuming processing, since the microfilming of materials to be stored for a short time has no meaning, but microfilming materials to be stored or continuously for a long period of time can lead to irreparable losses.

Because of all these and other reasons, archives in the Soviet Union are not microfilming in order to substitute for the original.

A tremendous quantity of documentary materials are concentrated in the government archives of the Soviet Union.

There are created every year, in establishments and organizations throughout the country, several million additional files, which are subject to deposit in government storage. The so-called "problem" of shelving has not been removed from our agendas, even at present, although it is being solved more and more with each passing year.

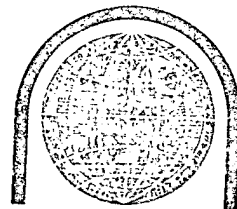
The positive solution of problems, arising from depositing documents in government storage and separating materials which are not subject to storage, is being carried out in the following basic directions: the construction of a specified number of new archive depositories; more

rational and economic assigning and storage of documentary materials in archive depositories, taking into account the possibility of adopting new techniques; increasing the attention given problems of expertism concerning the worth of documentary materials (transferring a specified group of documents, which at present are subject to perpetual storage, to materials stored temporarily, and shortening the period of temporary storage of materials); and further shortening the direct accession of documentary materials from small subsidiary auxiliary establishments.

In all of this one must take into account the limiting possibilities of historical science, which for the present does not have the forces to embrace the huge mass of documentation which is generated and deposited.

It goes without saying, that with the growth of culture, with the development of science, the demand for archival materials will grow, especially in their scientific historical utilization, but we must keep in mind the creation in excess and in ever increasing volume of new documents arising from business correspondence, which even in the most minimal dimension cannot be embraced by historical science.

In conclusion it should be noted that Soviet archivists, who are solving complex problems of archival development in the country, are utilizing many new scientific, engineering and technical achievements. We are confident that our goal, the goal of the custodians of the documentary wealth of the Soviet people, will be successfully carried out. But, the principal condition for this, without doubt, is the preservation and strengthening of peace in all the world. Peace for peoples, peace for progress, peace for the flourishing of science and culture, peace for archives, and the voice of peoples for the defense of peace must constantly sound the alarm.



*"Record Protection in
an Uncertain World"*

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GENERAL ASSEMBLIES

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Summary of Soviet Archivist's Speech
"Records Preservation in the USSR"

1. The Soviet state is always concerned with history, culture, and Archives.
2. Soviet Archives problems differ from foreign archives so - we create our own school, management, and solutions - But - we never refuse to employ foreign experiences.
3. Our Soviet Archives use many sciences and humanities to preserve documents. The main problems:
 - (a) Archives construction and equipment
 - (b) Long-range restoration and preservation
 - (c) Methods to restore faded texts
 - (d) Protecting documents from poor air and light
 - (e) Introducing archival microfilming
4. Also important is introduction of modern operations, restoration and microfilming.
5. Prior to 1917 Russia had only 20 small archival buildings in the government departments.
6. Today there is a network of 3,000 USSR national archives and several hundred thousand lesser government and other archives.
7. At first we stored archives in palaces, churches, and monasteries. In 1950 we began constructing national archives buildings. Thus in Moscow the "Central State Archives for Ancient Documents" first had 29 kilometers or 18 miles (95,000 ft) of shelves; then by 1960 it had eight more buildings with shelf space of 13¹/₄ kilometers, or nearly 8¹/₄ miles (440,000 ft).
(The U. S. National Archives at 9th and Penn. Ave., NW., Wash., D.C. has 900,000 ft of shelving.)
8. Since 1957, 100 new archival buildings were built with a capacity of 1,600 kilometers or 1,000 miles of shelving (5,250,000 ft) to house 80 million documents and 200,000 reels of film. Thirty more buildings are being constructed.
9. Among the new archives buildings are:
 - (a) National Archives for National Economy, Literature, and Art.
 - (b) Archives of the Russian Republic
 - (c) Film depositories for cinema documentaries
 - (d) Central Government Archives in ten Republics of:

Azerbaidzhan	Armenian
Belorussian	Kirgiz
Georgian	Lithuanian
Kazakl	Moldavian
Uzbeh	Turkmen

- (e) Plus 24 buildings for their branches
 - (f) and 20 in Autonomous republics and regions
 - (g) and 22 for government archives in the largest Russian cities.
10. Film depositories were built in the cities of Kiev, Tibilisi, Kishinev, Bakn, Ashkhabad, and elsewhere.
 11. Archives construction will soon start in the Ukrainian, Tadzhik, and Estonian Republics.
 12. Since 1957, 100 regional centers and 1,000 city and district centers were taken over as archival depositories while use of a few old buildings were discontinued.
 13. Standard building plans call for capacities for 210,000 files 400,000, 600,000, 800,000 or 1,200,000 files or for 10,000 or 20,000 reels of film.
 14. Archive building plans provide areas for processing, research, methods studies, microfilming restoration, and disinfection. Shelves are (library type) stationary, metal, double faced. New constuction is designed for movable "Kompaktus" shelves (An Australian firm--Literature attached). Hot water heat in administrative area and in conditioning in stacks.
 15. New plans call for larger, multi-story buildings and emphasis on preservation and use, efficient service thru modern techniques, and automation.
 16. One plan is an archive for 1,500,000 files 24 kilometers or 15 miles (79,000 ft) of shelves. 8 story building for air conditioned storage. Adjoining storage is service space, elevators, space for staff and curotor for the "fund" (collection?)
 17. The gound floor accommodates the patrons, administration, processing, restoration, and microfilming. Patrons in reading hall are isolated from the technological processes. There are two entrances plus a fire exit, an entrance hall, cloak room, information table, and exhibition hall. One side are the offices and on the other the catalog, reference library, and reading hall. There are two elevators (227 pound capacity) and a materials lift (dumb waiter). Each floor is 3.3 meters (10 ft) high and has a room for the curator.
 18. Hand oarts are used in the depository, lifts and reading halls.
 19. Fire systems detech smoke and heat, provide fire extinguisher stations, and signals alarm with lights and sound.

20. Some of the dual-faced metal shelves 7 shelves high are doubled to increase capacity (Standard system throughout Suitland and National Archives) Shelf size is $13\frac{1}{4}$ inches deep, $11\frac{3}{4}$ inches apart, and $32\frac{1}{2}$ ft long. (U.S. uses 42 inches long units, 15 inches deep and $10\frac{1}{2}$ inches apart). The total width of the two faces is 30 inches and the aisle space is another 30 inches.
21. Air conditioning temperatures are 59° + or - 2° and humidity (Not stated) % (usually 50%) + or - 5%.
22. Some buildings are designed for 2,000,000 to 7,000,000 files 30 to 100 kilometers, 19 to 63 miles, (100,000 to 300,000 ft) of shelves. Some ministries and institutions build their own archives building.
23. New developments in Cinema, television and sound recording led to Creation of Archives for films and recordings.
24. Early flammable films were stored underground. Problems such as ground water makes above ground construction preferable.
25. Film archives have better equipment than document storage units.
26. Film archives are fire-wall-compartmented with valves for fire extinguishing gases.
27. The Cinema and photo archive requires constant skilled servicing.
28. It was important to reject incorrect practices and set up strict scientific principles in the document restoration laboratories.
29. Agencies developing scientific methods for document processing include:
 - (a) USSR Scientific Reserach Institute for Managing Documents and for Archival Affairs -- of the Main Archival Administration.
 - (b) USSR Central Scientific Research Laboratory for Preserving and Restoring Museum and Art Treasures -- of the Ministry of Culture,
 - (c) Laboratory for Preserving and Restoring Documents -- of the Acadamy of Science.
30. The Archives have accumulated large quantities of documents of poor physical quality that do not last. This is explained:
31. - first -- By the rapid increase in the Archives size and so preservation is difficult
32. - second -- Paper today is less durable and unlike early parchment and dyes
33. - third -- Air pollution is weakening and discoloring documents.

34. Designated official laboratory procedures and materials are required for renewing records. "Classical methods" are used on very old documents.
35. "Younger" documents get synthetic materials to slow disintegration and stabilizing solutions to increase durability.
36. Missing portions of documents are restored with identical pulp or long-fiber paper.
37. Certain reference documents are laminated.
38. A serious problem is archival microfilming and its storage and use.
39. Throughout the country the Main Archival Administration has set up 102 restoration workshops and microfilm laboratories. The largest are in Moscow and Leningrad with a capacity of "many million frames each year".
40. Large laboratories have been created in each republic archive and in many regions and districts.
41. It was determined that the basic direction for archival filming would be:
 - (a) Creation of an insurance collection of the most valuable and unique material.
 - (b) Add to Soviet Collections with copies of documents from abroad and exchanging microfilms among archives.
 - (c) Broaden the use of documentary materials by giving out copies rather than originals to interested parties.
 - (d) Publishing documents by subject or collection in microfilm form.
 - (e) Substituting microfilm copies for original documents.
42. Use of microfilm is widespread in Archival work.
43. The advantage of storing microfilm in archives in place of paper appears to be quite groundless. Therefore, the approach to micro-filming needs to be highly cautious. There cannot be talk of massive destruction of originals after microfilming. Practical experience has shown that microfilming documents by single frames costs considerably more than construction of buildings for storage of the original document. Using assembly-line cameras in archival operations runs up against the impossibility of photographing bound and stitched material, oversize documents, and records of difference color, size thickness, and text contrast. Microcopying does not convey all the external peculiarities of the original (paper texture, ink color, water marks, etc.) There is a technical limit to some text reductions. Reading microfilm is much more tiring and objectionable to readers. Also, unless there is special cross referencing, a number of exceptionally strict, difficult to employ requirements for systemization, and the

microcopying of originals under scientific and technical processing a number of documents will be "buried" forever among countless rolls of film. It is not clear which deposited materials should be micro-filmed even though they have already cost special, expensive, and labor-consuming processing. The microfilming of materials to be stored for a short time has no meaning, but microfilming materials to be stored or used continuously for a long period of time can lead to irreparable losses.

44. Because of these and other reasons, Archives in the Soviet Union are not microfilming to substitute for the original.
45. A tremendous quantity of documents are in Soviet Archives.
46. Every year organizations create several million more files that are subject to deposit. The "problem" of shelving has not been removed from the agendas, but it is being solved.
47. The positive solution to depositing documents and separating materials not subject to storage follows these basic directions:
 - (a) Construction of a specified number of new dispositories;
 - (b) More rational and economic assigning of storage space;;
 - (c) Considering the possibility of adopting new techniques;
 - (d) Increased attention by experts of the worth of documents (transferring specified material, now subject to perpetual storage, over to temporary storage and shortening the periods for the temporary storage of other materials)
 - (e) Shortening the direct accession of documents from small subsidiary establishments.
48. In all this one must consider the limits of historical science which does not yet have the forces to embrace the huge mass of documentation generated and deposited.
49. With the growth of culture and development of science the demand for archival materials will grow, but we must keep in mind that the excess created in increasing volumes cannot be embraced by historical science even in the most minimal dimension.
50. In conclusion it should be noted that Soviet archivists, who are solving complex problems of archival development in the country, are utilizing many new scientific, engineering and technical achievements. We are confident that our goal, the goal of the custodians of the documentary wealth of the Soviet people, will be successfully carried out. But, the principal condition for this, without doubt, is the preservation and strengthening of peace in all the world. Peace for people, peace for progress, peace for the flourishing of science and culture, peace for archives, and the voice of peoples for the defence of peace must constantly sound the alarm.